MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2015/2016

BIP2044 – INTERNET PROGRAMMING

(All sections / Groups)

1st March 2016
9.00 a.m. - 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of **THREE (3)** pages (excluding header page).
2. There are **TEN (10)** Questions with equal marks.
3. Answer **ALL** questions. Write your answers on the Answer Booklets provided.

Answer all questions.

Question 1

An applet implements MouseListener, and has int instance data x and y. These variables will be the (X, Y) coordinates of where the mouse is clicked. Every time the mouse is clicked, draw a 50x50 Oval centered around x and y. Write the mouseClicked and paint methods to draw the Oval every time the mouse is clicked. **(10 marks)**

Question 2

Write a method to compute the average of an int array and return the value as a double. The int array and the number of elements in the array are both passed as parameters to the method in that order. **(10 marks)**

Question 3

Given two points in an applet represented by the four int variables a1, b1, a2 and b2, write a paint method to draw a line between the two points and write the coordinates of the two points next to the two points. **(10 marks)**

Question 4

Assume that a = "10", b = "20", y = 30 and z = 40.
How do the following two statements differ?
System.out.println(a + b + y + z);
System.out.println(y + z + a + b);

(10 marks)

Question 5

Given the following tax table information, write Java code to assign the double taxRate appropriately given the double pay. Select the selection statement (if, if-else, switch) that makes the most sense.

If pay is more than 100,000, tax rate is 50%
If pay is more than 60,000 and less than or equal to 100,000, tax rate is 40%
If pay is more than 30,000 and less than or equal to 60,000, tax rate is 30%
If pay is more than 15,000 and less than or equal to 30,000, tax rate is 20%
If pay is more than 5,000 and less than or equal to 15,000, tax rate is 5%
If pay is less than or equal to 5,000, tax rate is 0%

(10 marks)

Continued ....

Question 6

Define an interface class that contains two int constants, X = 5 and Y = 10 and one int method called useXY which receives no parameters. Call your interface class XYClass.

(10 marks)

Question 7

What output is produced by the following code fragment? Explain.

```
System.out.print ("Malaysia is the BEST!");
System.out.println ("12345");
System.out.print ("Test this if you are not sure.");
System.out.print ("Some people say Singapore is better.");
System.out.println ();
System.out.println ("But I love Malaysia more!!!!");
```

(10 marks)

Question 8

Write a method called random100 that returns a random integer in the range of 1 to 100 (inclusive).

(10 marks)

Continued ....

For the question 9 and 10 below, write the requested portions of a class called BaseballPlayer. *This class contains the following data instances:*

```
private String name;
private String position;
private int numAtBats;
private int numSingles;
private int numDoubles;
private int numTriples;
private int numHomeRuns;
private double battingAverage;
```

Question 9

Write the constructor, which is passed the player's name and position. **(10 marks)**

Question 10

Write a toString method that returns the player's name, position and batting average formatted to have 1 digit to the left of the decimal and 3 digits to the right of the decimal. Assume DecimalFormat has been imported. **(10 marks)**

END OF PAPER